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## WEST Search History

DATE: Tuesday, February 04, 2003

**Set Name Query**  
side by side**Hit Count Set Name**  
result set*DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR*

L10 L9 and OmpA 10 L10

L9 P40 2242 L9

*DB=USPT,PGPB; PLUR=YES; OP=OR*

L8 L5 and P40 11 L8

L7 ((15/ )!.CCLS. |(Andreoni/ )!.CCLS. |(and/ )!.CCLS. ) 0 L7

L6 L5 and P40 11 L6

L5 424/190.1 440 L5

L4 ((and/ )!.CCLS. |(P40/ )!.CCLS. |(11/ )!.CCLS. ) 0 L4

*DB=USPT; PLUR=YES; OP=OR*

L3 L1 and P40 4 L3

L2 L1 and nasal delivery 200677 L2

L1 ((424/190.1 )!.CCLS. ) 294 L1

END OF SEARCH HISTORY

[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 10 of 10 returned.**

- 
- ☐ 1. [6416971](#). 08 May 91; 09 Jul 02. Soluble single chain T cell receptors. Reinherz; Ellis L., et al. 435/69.1; C12P021/03.
- 
- ☐ 2. [6410030](#). 01 Sep 00; 25 Jun 02. Peptide fragment of respiratory syncytial virus protein G, immunogenic agent, pharmaceutical composition containing it and preparation process. Binz; Hans, et al. 424/204.1; 424/211.1 530/300 530/350 536/23.72. A61K039/12 A61K039/155.
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- ☐ 3. [6270993](#). 15 Jul 98; 07 Aug 01. VEGF-binding polypeptide. Shibuya; Masabumi, et al. 435/69.1; 435/252.3 435/254.11 435/320.1 435/325 536/23.1 536/23.4 536/23.5. C07H021/04 C12N015/00.
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- ☐ 4. [6197929](#). 11 Aug 97; 06 Mar 01. Carrier protein having an adjuvant effect, immunogenic complex containing it, process for their preparation, nucleotide sequence and vaccine. Binz; Hans, et al. 530/350; 424/184.1 424/259.1 424/278.1 424/282.1 530/300 530/825. C07K001/00 A61K038/00 A61K039/108 A61K045/00.
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- ☐ 5. [6113911](#). 04 Oct 96; 05 Sep 00. Peptide fragment of respiratory syncytial virus protein G, immunogenic agent, pharmaceutical composition containing it and preparation method. Binz; Hans, et al. 424/211.1; 424/184.1 424/185.1 424/186.1 424/204.1 435/69.1 435/69.3 536/23.72. A61K039/155 A61K039/12.
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- ☐ 6. [6063612](#). 13 Dec 91; 16 May 00. Antiviral reagents based on RNA-binding proteins. Jayasena; Sumedha D., et al. 435/235.1; 530/320 530/325 530/826. C12N007/00 C07K014/00.
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- ☐ 7. [5477001](#). 25 Jan 93; 19 Dec 95. Recombinant DNA coding for a novel protein having .beta.-1,3-glucanase activity, bacteria containing this DNA, transformed plant cells and plants. Sass; Catherine, et al. 800/301; 435/200 435/252.3 435/414 435/416 435/418 435/419 435/69.1 435/69.8 530/370 530/378 536/23.1 536/23.2 536/23.6 800/306 800/317.3 800/322. A01H005/00 C12N009/24 C12N015/29.
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- ☐ 8. [4673641](#). 25 Jan 84; 16 Jun 87. Co-aggregate purification of proteins. George; Henry J., et al. 435/69.1; 435/261 435/320.1 435/69.3 435/69.7 435/69.8 530/412 530/418 536/23.1 536/23.4. C12P021/00 C12P021/02 C12P021/04 C12N015/00 C12N001/02 C12N001/00 C07K003/24.
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- ☐ 9. [WO 27432 A1](#). 08 Nov 99. 18 May 00. USE OF AN ENTEROBACTERIUM PROTEIN [OmpA](#) FOR SPECIFIC TARGETING TOWARDS ANTIGEN-PRESENTING CELLS. BONNEFOY, JEAN-YVES, et al. A61K039/385; A61K039/39 A61P031/00 A61P035/00 A61P037/00.
- 
- ☐ 10. [WO 200121203 A1](#) [EP 1218029 A1](#) [FR 2798857 A1](#) [AU 200075301 A](#) [BR 200014246 A](#). Vaccine against respiratory syncytial virus, comprises enterobacterial outer membrane protein and viral immunogen, provides protective response throughout the respiratory tract. CORVAIA, N, et al. A61K009/00 A61K039/108 A61K039/155 A61K039/385 A61K048/00 A61P031/14.
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L9 and OmpA	10

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L10: Entry 9 of 10

File: EPAB

May 18, 2000

PUB-NO: WO000027432A1

DOCUMENT-IDENTIFIER: WO 27432 A1

TITLE: USE OF AN ENTEROBACTERIUM PROTEIN OmpA FOR SPECIFIC TARGETING TOWARDS  
ANTIGEN-PRESENTING CELLS

PUBN-DATE: May 18, 2000

## INVENTOR-INFORMATION:

NAME	COUNTRY
BONNEFOY, JEAN-YVES	FR
LECOANET, SYBILLE	CH
AUBRY, JEAN-PIERRE	FR
JEANNIN, PASCALE	FR
BAUSSANT, THIERRY	FR

INT-CL (IPC): A61 K 39/385; A61 K 39/39; A61 P 31/00; A61 P 35/00; A61 P 37/00

EUR-CL (EPC): A61K039/385; A61K039/39

## ABSTRACT:

CHG DATE=20001128 STATUS=O>The invention concerns the use of an enterobacterium protein OmpA, preferably *Klebsiella pneumoniae* P40 protein, for specific targeting of a biologically active substance associated therewith towards antigen-presenting cells, in particular human dendritic cells. The invention also concerns the use of the OmpA protein for preparing a pharmaceutical composition for preventing and/or treating diseases, in particular cancers related to a tumour-associated antigen, autoimmune diseases or infectious diseases.

## End of Result Set



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L10: Entry 10 of 10

File: DWPI

Mar 29, 2001

DERWENT-ACC-NO: 2001-257929  
DERWENT-WEEK: 200251  
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TITLE: Vaccine against respiratory syncytial virus, comprises enterobacterial outer membrane protein and viral immunogen, provides protective response throughout the respiratory tract

INVENTOR: CORVAIA, N; GOETSCH, L ; CORVA, A N ; GOESTCH, L ; CORVAIEA, N

PRIORITY-DATA: 1999FR-0011888 (September 23, 1999)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200121203 A1	March 29, 2001	F	038	A61K039/108
EP 1218029 A1	July 3, 2002	F	000	A61K039/108
FR 2798857 A1	March 30, 2001		000	A61K039/155
AU 200075301 A	April 24, 2001		000	A61K039/108
BR 200014246 A	May 21, 2002		000	A61K039/108

INT-CL (IPC): A61 K 9/00; A61 K 39/108; A61 K 39/155; A61 K 39/385; A61 K 48/00; A61 P 31/14

ABSTRACTED-PUB-NO: WO 200121203A  
BASIC-ABSTRACT:

NOVELTY - Use of an outer membrane protein A (OmpA) from an enterobacterium, or its fragment, associated with an immunogenic peptide (I) from respiratory syncytial virus (RSV) to prepare a nasal composition that induces a protective response, against RSV infection, in the upper and/or lower (lung) respiratory tract.

ACTIVITY - Antiviral.

Mice were given three intranasal doses, at 10 day intervals, of P40G2Na (a fusion protein of the 130-230 amino acid (aa) part of RSV G protein and the 344 aa P40 protein of Klebsiella pneumoniae) at 40 micro g of the G protein fragment (G2Na). The mean serum titer of G2Na-specific immunoglobulin G was about 3.3 in naive mice but 4.2 in mice presensitized by intranasal administration of K. pneumoniae. When the immunized animals were challenged with RSV-A, a reduction in viral titer, in the lung, of 2 log 10 was observed for 5 of 6 animals, and the effect was even greater for presensitized animals.

MECHANISM OF ACTION - Immune response stimulator.

USE - The method is useful for producing vaccines for prevention or treatment of RSV infections.

ADVANTAGE - OmpA potentiates the immune response to some immunogenic peptides, eliminating the need for adjuvants.

ABSTRACTED-PUB-NO: WO 200121203A  
EQUIVALENT-ABSTRACTS:

CHOSEN DRAWING: Dwg. 0/5

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L3: Entry 2 of 4

File: USPT

May 21, 2002

US-PAT-NO: 6391316

DOCUMENT-IDENTIFIER: US 6391316 B1

TITLE: Vaccine compositions comprising Haemophilus somnus transferrin-binding proteins and methods of use

DATE-ISSUED: May 21, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Potter; Andrew A.	Saskatoon			CA
Rioux; Clement	Cap-Rouge			CA
Schryvers; Anthony B.	Calgary			CA

US-CL-CURRENT: 424/256.1; 424/185.1, 424/190.1, 424/193.1, 530/350

## CLAIMS:

What is claimed is:

1. A vaccine composition comprising a pharmaceutically acceptable vehicle and an isolated immunogenic H. somnus transferrin-binding protein selected from the group consisting of (a) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-971, inclusive, of FIG. 3 (SEQ ID NO:2), (b) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 29-971, inclusive, of FIG. 3 (SEQ ID NO:2), (c) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-662, inclusive, of FIG. 4 (SEQ ID NO:3), and (d) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 20-662, inclusive, of FIG. 4 (SEQ ID NO:3).

2. The vaccine composition of claim 1 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 1-971, inclusive, of FIG. 3 (SEQ ID NO:2).

3. The vaccine composition of claim 2 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 29-971, inclusive, of FIG. 3 (SEQ ID NO:2).

4. The vaccine composition of claim 1 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 1-662, inclusive, of FIG. 4 (SEQ ID NO:3).

5. The vaccine composition of claim 4 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 20-662, inclusive, of FIG. 4 (SEQ ID NO- 3).

6. ~~The vaccine composition of claim 1 comprising an H. somnus transferrin-binding protein 1 and an H. somnus transferrin-binding protein 2.~~

7. The vaccine composition of claim 1 further comprising an H. somnus LppB polypeptide.



8. The vaccine composition of claim 1 further comprising an adjuvant.
9. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 1.
10. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 2.
11. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 3.
12. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 4.
13. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 5.
14. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 6.
15. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 7.
16. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 8.
17. A method of producing a vaccine composition comprising:
  - (a) providing an isolated immunogenic H. somnus transferrin binding protein selected from the group consisting of (a) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-971, inclusive, of FIG. 3 (SEQ ID NO:2), (b) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 29-971, inclusive, of FIG. 3 (SEQ ID NO:2), (c) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-662, inclusive, of FIG. 4 (SEQ ID NO:3), and (d) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 20-662, inclusive, of FIG. 4 (SEQ ID NO:3); and
  - (b) combining said transferrin-binding protein with a pharmaceutically acceptable vehicle.



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L3: Entry 3 of 4

File: USPT

Feb 6, 2001

US-PAT-NO: 6183755

DOCUMENT-IDENTIFIER: US 6183755 B1

TITLE: Active proteins from Borrelia burgdorferi

DATE-ISSUED: February 6, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Motz; Manfred	Munchen			DE
Soutscheck; Erwin	Munchen			DE
Fuchs; Renate	Deisenhofen			DE
Wilske; Bettina	Munchen			DE
Preac-Mursic; Vera	Munchen			DE

US-CL-CURRENT: 424/234.1; 424/184.1, 424/185.1, 424/190.1, 424/278.1, 424/282.1,  
514/2, 530/300, 530/350, 530/825

## CLAIMS:

What is claimed is:

1. A purified protein derived from Borrelia burgdorferi wherein the protein is characterized in that it

- a. elicits an immunological response from a mammal;
- b. has been prepared by expression in a bacterium other than Borrelia burgdorferi;
- c. is free of other proteins derived from Borrelia burgdorferi; and
- d. is a protein having SEQ ID NO:11, SEQ ID NO:15, at least 10 amino acids of SEQ ID NO:11, or at least 10 amino acids of SEQ ID NO:15.

2. The purified protein of claim 1 which has SEQ ID NO:11 or at least 10 amino acids of SEQ ID NO:11.

3. The purified protein of claim 1 which has SEQ ID NO:15 or at least 10 amino acids of SEQ ID NO:15.

4. The purified protein of claim 1 which can be prepared using DNA isolated from Borrelia burgdorferi.

5. The purified protein of claim 4 which can be prepared using DNA isolated from Borrelia burdorferi (DSM No. 5662).

p-100-oligodeoxynucleotide sequence (SEQ ID NO:3),

p-100-oligodeoxynucleotide sequence (SEQ ID NO:3),

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**Search Results** - Record(s) 11 through 11 of 11 returned.

- 
- ☐ 11. [5549898](#). 15 Apr 94; 27 Aug 96. Immunogenic anaplasma marginale surface antigens, compositions, and methods of use. McGuire; Travis C., et al. 424/269.1; 424/265.1 424/266.1 424/270.1. A61K039/00 A61K039/002 A61K039/005 A61K039/018.
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Terms	Documents
L5 and P40	11

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